

VZCZCXRO1116
RR RUEHDE RUEHROV RUEHTRO
DE RUEHDJ #0859/01 3071109
ZNR UUUUU ZZH
R 021109Z NOV 08
FM AMEMBASSY DJIBOUTI
TO RUEHC/SECSTATE WASHDC 9652
INFO RUCNIAD/IGAD COLLECTIVE
RUCNSOM/SOMALIA COLLECTIVE
RUEHLMC/MILLENNIUM CHALLENGE CORPORATION WASHINGTON DC
RHMFIUU/CJTF HOA

UNCLAS SECTION 01 OF 02 DJIBOUTI 000859

DEPARTMENT FOR AF/E
LONDON, PARIS FOR AFRICA WATCHER
CJTF-HOA FOR POLAD
ADDIS ABABA FOR REGIONAL ENVIRONMENT OFFICER

SIPDIS

E.O. 12958: N/A
TAGS: [ENRG](#) [ECON](#) [EINV](#) [SENV](#) [PGOV](#) [PREL](#) [ET](#) [DJ](#)
SUBJECT: DJIBOUTI'S QUEST FOR NEW ENERGY SOURCES

REF: DJIBOUTI 596

DJIBOUTI 00000859 001.2 OF 002

¶1. SUMMARY: Djibouti is completely dependent on expensive diesel-generated power, and its nascent service economy is fast outstripping modest domestic production capacity. Faced with trying to maintain and expand electricity access for a populace already strapped by high food prices, while answering the new energy demands of large-scale foreign investment projects, the GODJ has begun in earnest to look to the development of its considerable renewable energy resources. In the short term, an interconnection with Ethiopia's hydropower grid promises the most rapid relief. In the longer term, Djibouti would be prudent to accelerate its efforts to develop the country's long-neglected natural resources: abundant geothermal, wind, and solar power. END SUMMARY.

EXPLODING ENERGY DEMAND

¶2. In an October 4 meeting, Djama Ali Guelleh, the Director General of Djibouti's national utility company Electricite de Djibouti (EDD), told EconOff that his company was struggling to meet Djibouti's ever-increasing demands for electricity. Whereas in the past, EDD could anticipate a one or two percent annual growth in energy demand, he said, the recent sudden increase in foreign direct investment (FDI) has disrupted this pattern. This year and next, EDD is preparing for a 10-15 percent increase in demand. Guelleh cited the newly opened and now expanding luxury Kempinski hotel, built by the Nakheel Group arm of Dubai Ports World (DP World), as an example of a single customer demanding unprecedented levels of energy supply. Guelleh said that he only expected an increase in this kind of energy-intensive development in the near future, noting current projects such as the GODJ-DP World Doraleh Container Terminal slated to open in December, U.S.-led investment in salt mining at Lac Assal, and hundreds of planned housing units in the works.

FOR NOW: HOOK INTO
ETHIOPIA'S HYDROPOWER

¶3. Guelleh said that the project to construct a power interconnection between Djibouti and Ethiopia is making "good progress," and as of now seems to be the most promising source of additional energy capacity. The African Development Fund (ADF) recently approved additional funding to cover inflationary cost increases for materials, as well as an upgrade from a single circuit to a double circuit transmission line, bringing total project costs

to over \$100 million. The two primary companies selected for the project, Italian Siemens and Indian Kalpataru, are aiming for an operation start date in 2010, with a transmission of up to 160 MW--in comparison with EDD's current 100 MW maximum production capacity. Ethiopia will provide its surplus of electricity during the summer when hydropower from rains is abundant, and Djibouti will in turn deliver fuel energy to Ethiopia during the winter when Ethiopia does not get much rainfall, Guelleh said. (NOTE: While equipment breakdowns and other technical problems often significantly reduce EDD's theoretical 100 MW production capacity, Djibouti's peak summer season demand of 50 MW dips to 20-30 MW in the cooler winter season, leaving some potential for surplus capacity delivery to Ethiopia. END NOTE).

DOWN THE ROAD: DJIBOUTI'S
RENEWABLE ENERGY GOLDMINES?

¶4. Looking beyond the hookup into Ethiopia's power grid, Guelleh said that the GODJ was continuing to pursue its geothermal, solar, and wind power options. Following the signature of agreements between Iceland and the GODJ in 2007 and early 2008, the company Reykjavik Energy Invest (REI) is planning to drill three geothermal test wells in the next few months. In July, REI signed the first agreement with the International Finance Corporation's new InfraVentures fund. InfraVentures will cover 35% of the Djibouti project's exploration costs, with a contribution ceiling of \$4 million. The success of the three test wells, to be located in Djibouti's active geothermal area near the salt lake Assal and the beginning of the Rift Valley, will be crucial in determining the overall feasibility of the Iceland-Djibouti project.

¶5. According to Dr. Jalludin Mohamed, a geologist and the Director General of the Djibouti Research and Study Center (CERD), REI has

DJIBOUTI 00000859 002.2 OF 002

contracted Iceland GeoSurvey (ISOR) to drill the first three wells, although one or more specialty subcontractors may also be chosen. An environmental impact study has already been completed, and the project is expected to have minimal negative environmental consequences. Given the extremely specialized nature of the needed equipment and expertise, Dr. Jalludin estimated that a realistic start date for the drilling of the test wells would be early 2009. Much will hinge, according to Dr. Jalludin, on the level of total dissolved solids (TDS) discovered in the test wells. During the 1970s, modest geothermal attempts in Djibouti were abandoned because of too-high salinity; and this time, Dr. Jalludin said that the location had been carefully chosen for the highest probability of a TDS level "close to seawater." Depending on the success of the test wells and the ability of Iceland and Djibouti to pull together a projected \$350 million in financing, construction of a geothermal plant could begin as early as 2011 or 2012, with a potential production capacity of 50-100 MW. (NOTE: In 1999, the United States Trade and Development Agency (USTDA) co-financed a geothermal feasibility study with the U.S. firm Geothermal Development Associates. The GODJ's MOU with the Icelanders was thus a disappointment. Post will renew efforts to explore opportunities for U.S. firms in the geothermal sector. END NOTE).

¶6. In addition to geothermal potential, Djibouti has considerable untapped solar, wind, and tidal power resources. While still modest in scale, Djibouti's efforts to utilize its near-constant sunshine are increasing. The Ministry of Education has already equipped at least twenty-three schools and several rural health clinics with solar panels, and has contracted with a young Djiboutian company, the Societe d'Ingenierie Electrique, to equip an additional seventeen schools. Several of Djibouti's small-scale experiments in rural agriculture are also outfitted with solar water pumps, and a local bank is offering loans for households interested in purchasing small solar panels for domestic use. Anecdotally, rural communities have reported great success with solar panels, although provision of maintenance for hard-to-repair solar equipment remains a challenge.

¶7. Building on these efforts to install small-scale solar projects

for localized needs, the GODJ has begun looking for partners to exploit solar energy on a more commercial scale. Guelleh reported that several companies have approached EDD to discuss solar project possibilities, including at least one U.S. firm. Guelleh said that EDD hopes to reach an agreement with the U.S. company Solar Power Ltd. for the production of 20 MW of solar power. Another American firm, Maple Ridge, is interested in developing wind energy in Djibouti and has signed a memorandum of understanding with EDD for the potential production of 20 MW to 50 MW of wind power. Currently, Guelleh said, EDD is awaiting Maple Ridge's response to EDD's proposed Power Purchase Agreement (PPA) terms.

ENERGY: THE LIMITING FACTOR

18. COMMENT: The former head of Djibouti's National Investment Promotion Agency--now serving as Minister of Transport--recently told EmbOffs that energy was the "number one, two, and three" issue on his list of potential impediments to continued foreign direct investment (FDI). Many businesspeople and government officials have echoed his assessment. To continue its success in growing FDI--and especially to begin encouraging local small-scale industry--Djibouti must aggressively continue to seek out cleaner, cheaper, and more reliable energy sources.

19. Djibouti's decision to investigate several potential renewable energy sources while simultaneously pursuing an interconnection with Ethiopia is wise. In the long term, renewable energy sources may prove to be Djibouti's great undiscovered natural resource. However, for the practical present, most of Djibouti's energy projects remain in the experimental stages, while immediate demand continues to grow. Post agrees with CERD and EDD that Djibouti needs a coherent strategic policy to coordinate the development and use of disparate energy sources. Post has submitted a proposal for an Embassy Science Fellow (reftel) to support the Ministry of Energy in developing this kind of framework policy, and will continue to urge all of the GODJ players to amplify their individual efforts through an emphasis on interagency coordination. END COMMENT.

SWAN